

REMARKS

Claims 14 to 18, 20, and 22 to 56 are now pending in this application. Claims 1 to 13, 19, and 21 have been canceled without prejudice. New claims 22 to 56 have been added. New claims 26 to 42 generally track the language of canceled claims 1 to 13 and recite, e.g., methods of administering carbon monoxide (CO) to a patient using the apparatus recited in claim 14. New claims 43 to 56 also generally track the language of canceled claims 1 to 13, but independent claim 43 (upon which claims 44 to 46 depend) incorporates the subject matter recited in canceled claims 7 and 9. Claim 15 has been amended to correct informalities. The new claims add no new subject matter to the application.

Claim Objection

Claim 9 was objected to for depending upon a rejected base claim. According to the Office Action (at page 4), claim 9 would be allowable if redrafted in independent form and to incorporate all limitations of claim 1 and intervening claim 7. Applicants have therefore canceled claim 9 (thereby obviating the present objection) and added new claim 43. New claim 43 incorporates the limitations of claims 1, 7 and 9. Accordingly, applicants request that new claim 43 and all of its dependent claims be allowed.

Rejection Under 35 U.S.C. §102 (e)

Claims 1, 2, 6 to 8, 10, 12 to 17 and 19 were rejected under 35 U.S.C. 102(e) as allegedly anticipated by Otterbein et al. (U.S. Publication No. 2004/0258772; hereinafter "Otterbein"). Claims 1, 2, 6 to 8, 10, 12, 13 and 19 have been canceled without prejudice, thereby obviating the rejection with respect to those claims. With respect to claims 14 to 17, applicants respectfully traverse this rejection.

As an initial matter, applicants point out that new claim 26 has been added. New claim 26 generally tracks the language of canceled claim 1, but depends from claim 14, which recites an apparatus for administering carbon monoxide (CO) to a patient. New dependent claims 27 to

42 generally track the language of canceled claims 2 to 13. These new claims, like original claims 14 to 17, are not anticipated by Otterbein for the reasons discussed below.

Otterbein does not anticipate claims 14 to 17 because it does not describe an apparatus as recited in these claims. Otterbein discloses, *inter alia*, methods of treating cancer and unwanted angiogenesis by administering CO to patients. No apparatus resembling the one recited in the present claims is described in Otterbein. In an attempt to support its rejection with respect to the apparatus recited in claim 14, the Office Action states (at pages 2 and 3):

Claim 14 is rejected in that the reference teaches an apparatus including a CO source, a mixer or dosing unit, a respirator to deliver the CO to the patient and a sensor means to measure CO in the blood, and a controller to control the delivery of CO based on the measured values.

The Office Action does not point to any particular portion of Otterbein to support this assertion. Indeed, applicants submit that it would not be possible to do so because Otterbein does not disclose such an apparatus. Accordingly, Otterbein does not anticipate claims 14 to 17 because it fails to disclose all of the elements recited in those claims. Applicants therefore request that the present rejection be reconsidered and withdrawn and not applied to the new claims, which recite, e.g., methods of administering CO using the claimed apparatus.

**Rejection Under 35 U.S.C. §103 (a)**

Claims 3 to 5, 11 and 18 were rejected as allegedly obvious over Otterbein. As an initial matter, claims 3 to 5 and 11 have been canceled without prejudice, thereby obviating the rejection with respect to those claims. With respect to claim 18, applicants respectfully traverse this rejection. In support of its rejection, the Office Action states at page 3:

Otterbein does not teach the exact type of sensor sued [sic] to make the measurements. However, the examiner takes official notice that the recited sensor are well known in the art for making the measurement of blood CO. As such, it would have been obvious to modify Otterbein to use such a sensor, as it is merely the use of a sensor fir [sic] its intended purpose...Claim 18 is rejected in it [sic] would have been obvious to sound an alarm when the Co concentration exceeded a limit, to alert medical personnel of potential hazardous conditions.

Applicants point out that claim 18 depends from claim 14. Claim 14 recites an apparatus for administering carbon monoxide to a patient, which includes a delivering unit, a carbon monoxide source, a dosing unit for administering carbon monoxide to the patient, sensor means for determining the concentration of carbon monoxide in the blood, and control means for regulating the dosing unit depending on feedback from the sensor unit. Claim 18 recites the additional element that at least one of the sensor means is connected to an alarm unit. As discussed above, Otterbein does not teach or suggest all of the elements of the apparatus recited in claim 14, much less those of an apparatus that includes an alarm unit as recited in claim 18. Otterbein does not render the presently claimed apparatus obvious because neither it, nor any other art cited by the Office, discloses or suggests all of the elements recited in claim 18. Because Otterbein does not disclose the apparatus, it would not have been possible for a skilled practitioner to modify Otterbein as suggested by the Office. Thus, applicants submit that a *prima facie* case of obviousness against the present claims has not been established. Applicants therefore request that the present rejection be reconsidered and withdrawn and not applied to the new claims, which recite, e.g., methods of administering CO using the claimed apparatus.

Claims 20 and 21 were rejected under 35 U.S.C. 103(a) as allegedly obvious over Otterbein in view of Stenzler et al. (U.S. Publication No. 2004/0084048; hereinafter "Stenzler"). As an initial matter, applicants point out that claim 21 has been canceled without prejudice, thereby obviating the rejection with respect to that that claim. With respect to claim 20, applicants traverse for the reasons discussed below.

First, applicants traverse this rejection because Stenzler is not prior art against the present application. Stenzler was filed on May 12, 2003 and claims priority, as a continuation-in-part application, to U.S. Serial No. 10/259,997, which was filed on September 27, 2002. The present application was filed internationally on June 23, 2003, and claims priority to German Patent Application Serial No. 10230165.4, filed on July 4, 2002. Thus, Stenzler is not prior art against the present application.

Second, even if Stenzler were prior art against the present application, applicants would still traverse this rejection because the combination of Otterbein and Stenzler does not render

claim 20 obvious. Claim 20 depends from claim 14 and recites the additional element of a filter unit. The shortcomings of Otterbein with respect to applicants' claim 14 were discussed above. Otterbein does not teach or suggest all of the elements of the apparatus recited in claim 14, nor does it teach or suggest such an apparatus further including a filter unit as recited in claim 20. The Office cites Stenzler apparently because it believes Otterbein describes all of the elements of claim 18 except the filter and Stenzler describes a filter for removing CO exhaled by a patient (see, e.g., Stenzler at col. 3, paragraph 0028). However, as Otterbein, the primary reference, does not disclose all of the elements of the apparatus recited in claim 20, Stenzler's description of a filter is not sufficient to remedy the deficiencies of Otterbein. The combination of Otterbein and Stenzler does not teach or suggest all of the elements recited in claim 20. As Otterbein does not disclose the apparatus recited in claim 14, it would not have been possible for a skilled practitioner to modify Otterbein using Stenzler as suggested by the Office in an attempt to arrive at the apparatus recited in claim 20. Thus, the Office has failed to establish a *prima facie* case of obviousness against this claim and applicants request that the present rejection be reconsidered and withdrawn.

#### CONCLUSION

Applicants request that all claims be allowed. The excess claims fee and extension of time fee in the amount of \$1,000 and \$1,050, respectively, are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing attorney docket no. 18661-002US1.

Applicant : Christian Krebs et al.  
Serial No. : 10/520,270  
Filed : August 5, 2005  
Page : 12 of 12

Attorney's Docket No.: 18661-  
002US1 / INO10504PCTUS

Respectfully submitted,

Date: December 19, 2007

/Todd E. Garcia/

Todd E. Garcia, Ph.D.  
Reg. No. 54,112

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

21810803.doc